REMARKS

Claim 1 is pending in the present application. Claims 2-6 have been cancelled without prejudice or disclaimer to the subject contained therein.

Improper Finality of the Office Action Dated October 18, 2007

In the Office Action dated May 7, 2007, the Examiner rejected claims 1-6 under 35 U.S.C. §101 as being non-statutory; rejected claims 1-6 under 35 U.S.C. §112, first paragraph, for failing to set forth a specific utility; and rejected claims 1-6 under 35 U.S.C. §103 as being unpatentable over Wilkinson (US Patent 6,018,596) in view of Williams et al. (US Patent 5,751,862).

In response to the Office Action dated May 7, 2007, the Applicant amended the claims to reinforce the statutory nature of the claim and to reinforce the utility. The Applicant further argued that the claimed invention was statutory and contemplated a utility.

In the Office Action dated October 18, 2007, the Examiner again rejected claim 1 under 35 U.S.C. §101 as being non-statutory; rejected claim 1 under 35 U.S.C. §112, first paragraph, as being based upon a new reason, namely the claim being based upon a non-enabling disclosure; and rejected claim 1 under 35 U.S.C. §103 as being unpatentable over Williams et al. (US Patent 5,751,862) in view of Wilkinson (US Patent 6,018,596), Mendonca, and Curry et al. (US Patent 6,983,076).

In formulating the new rejection under 35 U.S.C. §112, first paragraph, the Examiner asserts that a device or processor is essential to the practice of invention and since the claim did not include a processor, the claim was not enabled by the disclosure.

It is respectfully submitted that originally filed claim 1 also did not recite a processor. Although the Response, dated August 6, 2007, amended claim 1, the amendments to claim 1 did not change claim 1 to not recite a processor. More specifically, the amendments to claim, in the Response dated August 6, 2007, did not delete any recitation of a processor. Thus, since originally filed claim 1 did not recite a processor and amended claim 1 of the Response dated August 6, 2007 did not recite a processor, amendments to claim 1, as set forth in the Response, dated August 6, 2007,

did not provide the basis for the new rejection under 35 U.S.C. §112, first paragraph, as set forth in the Office Action dated October 18, 2007.

MPEP §706.07(a) sets forth:

> Under present practice, second or any subsequent actions on the merits shall be final, except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p).

As demonstrated above, the amendments to claim 1, as set forth in the Response, dated August 6, 2007, do not relate to the deletion of a processor limitation from the claim language. The linchpin of the Examiner's new rejection under 35 U.S.C. §112, first paragraph, as set forth in the Office Action dated October 18, 2007, is based upon the absence of the recitation of a processor in claim 1. This absence of a recitation of a processor in claim 1 was true with respect to originally filed claim 1. The amendments to claim 1, as set forth in the Response, dated August 6, 2007, did not change this characteristic of claim 1.

In other words, originally filed claim 1 did not recite a processor. Moreover, the amendments to originally filed claim 1, in the Response dated August 6, 2007, did not delete any recitation of a processor.

Since the amendments to claim 1, as set forth in the Response, dated August 6, 2007, did not change the scope of claim 1 with respect to the absence of a recitation of a processor, the Examiner's new grounds for rejecting claim 1 under 35 U.S.C. §112, first paragraph, for being based upon a non-enabling disclosure could **not** and was **not** necessitated by the Applicant's amendments of August 6, 2007.

Since the Examiner issued new grounds for rejection under 35 U.S.C. §112, first paragraph, which, as clearly demonstrated by the record, were not necessitated by the Applicant's amendments, in accordance with **MPEP** §706.07(a), the finality of the Office Action dated October 18, 2007 is improper and premature.

Accordingly, the Examiner is respectfully requested to withdraw the finality of the Office Action dated October 18, 2007.

Rejection under 35 U.S.C. §101

Claim 1 has been rejected under 35 U.S.C. §101 as being non-statutory. This rejection is respectfully traversed.

In formulating the rejection under 35 U.S.C. §101, the Examiner apparently asserts that the claimed invention has no useful concrete, and/or tangible result. Moreover, the Examiner apparently asserts that the claimed invention fails to recite a practical application.

As set forth above, independent claim 1 recites a method for descreening a digital image. Moreover, independent claim 1 recites selecting two-dimensional separable filter LLP and two-dimensional separable filter HHP when the two-dimensional contour plot for non-separable filter DSCRN is an approximation to a desired circular symmetry; electronically applying the selected two-dimensional separable filter LLP to a digital image to produce a first filtered image; electronically applying the selected two-dimensional separable filter HHP to a digital image to produce a second filtered image; and subtracting the second filtered image from the first filtered image to generate a descreened digital image.

Selecting the proper filters is a useful process. Moreover, the descreening of a digital image sets forth a practical application of the selected filters. Lastly, the constructed filter provides a useful and tangible result, namely a descreened digital image.

Therefore, the method recited by amended independent claim 1 meets the statutory requirements of 35 U.S.C. §101.

Accordingly, in view of all the reasons set forth above, the Examiner is respectfully requested to reconsider and withdraw the present rejection under 35 U.S.C. §101.

B. Rejection under 35 U.S.C. §112, First Paragraph

Claim 1 has been rejected under 35 U.S.C. §112, first paragraph, for failing to provide an enabling disclosure. This rejection is respectfully traversed.

In formulating the rejection under 35 U.S.C. §112, first paragraph, the Examiner asserts that claim 1 is not enabled by the specification because the claim requires a processor or device to carry out the claimed method. This is respectfully traversed.

As set forth above, independent claim 1 recites a method which selects two-dimensional separable filter LLP and two-dimensional separable filter HHP when the two-dimensional contour plot for non-separable filter DSCRN is an approximation to a desired circular symmetry. Independent claim 1 further recites that the method electronically applies the selected two-dimensional separable filter LLP to a digital image to produce a first filtered image and electronically applies the selected two-dimensional separable filter HHP to a digital image to produce a second filtered image. Lastly, independent claim 1 recites that the method subtracts the second filtered image from the first filtered image to generate a descreened digital image.

Therefore, the method recited by independent claim 1 and the specification meet the statutory requirements of 35 U.S.C. §112, first paragraph.

Accordingly, in view of all the reasons set forth above, the Examiner is respectfully requested to reconsider and withdraw the present rejection under 35 U.S.C. §112, first paragraph.

C. Rejection under 35 U.S.C. §103

Claim 1 has been rejected under 35 U.S.C. §103 as being unpatentable over Williams et al. (US Patent 5,751,862) in view of Wilkinson (US Patent 6,018,596), Mendonca, and Curry et al. (US Patent 6,983,076). This rejection is respectfully traversed.

In formulating the rejection, the Examiner alleges that Williams et al. teaches all the method except:

selecting a cut-off frequency and designing therefrom a one-dimensional separable low pass filter (LP), one-dimensional separable low pass filter LP being a row vector having entries $[X_{-n}, X_{-(n-1)}, \ldots X_0, \ldots X_{n-1}, X_n]$;

generating a two-dimensional contour plot for the two-dimensional filter HPP;

generating a two-dimensional filter (ONE) when the two-dimensional contour plot for the two-dimensional separable filter LPP overlaps the two-dimensional contour plot for the two-dimensional separable filter HPP, two-dimensional filter ONE having the same

dimensions of two-dimensional separable filter HPP with the only non-zero entry of value 1 being located at the center of two-dimensional filter ONE;

subtracting two-dimensional separable filter HPP from two-dimensional filter ONE to create matrix (HPPinv);

convolving two-dimensional separable filter LPP with matrix HPPinv to obtain non-separable filter DSCRN having dimensions: {2m+2n+1, 2m+2n+1};

generating a two-dimensional contour plot for non-separable filter DSCRN; and/or

constructing a filter, for utilization with a rendering device, to eliminate moiré in a rendered image when the two-dimensional contour plot for non-separable filter DSCRN is an approximation to a desired circular symmetry, the filter being constructed of two-dimensional separable filter LLP and two-dimensional separable filter HHP.

To meet this deficiency in the teachings of <u>Williams et al.</u>, the Examiner proposes to modify the teachings of <u>Williams et al</u>. with the teachings of <u>Wilkinson</u>. The Examiner alleges that <u>Wilkinson</u> teaches selecting a cut-off frequency and designing therefrom a one-dimensional separable low pass filter (LP), one-dimensional separable low pass filter LP being a row vector having entries $[X_{-n}, X_{-(n-1)}, \ldots X_0, \ldots X_{n-1}, X_n]$ and convolving two-dimensional separable filter LPP with matrix HPPinv to obtain non-separable filter DSCRN having dimensions: {2m+2n+1, 2m+2n+1}.

However, the Examiner asserts that the combination of <u>Williams et al</u>. and <u>Wilkinson</u> fails to teach:

generating a two-dimensional contour plot for the two-dimensional filter HPP;

generating a two-dimensional filter (ONE) when the two-dimensional contour plot for the two-dimensional separable filter LPP overlaps the two-dimensional contour plot for the two-dimensional separable filter HPP, two-dimensional filter ONE having the same dimensions of two-dimensional separable filter HPP with the only non-zero entry of value 1 being located at the center of two-dimensional filter ONE;

subtracting two-dimensional separable filter HPP from two-dimensional filter ONE to create matrix (HPPinv);

generating a two-dimensional contour plot for non-separable filter DSCRN; and/or

constructing a filter, for utilization with a rendering device, to eliminate moiré in a rendered image when the two-dimensional contour plot for non-separable filter DSCRN is an approximation to a desired circular symmetry, the filter being constructed of two-dimensional separable filter LLP and two-dimensional separable filter HHP.

To meet this deficiency in the combination of Williams et al. and Wilkinson, the Examiner proposes to modify the combination of Williams et al. and Wilkinson with the teachings of Mendonca. The Examiner alleges that Mendonca teaches generating a two-dimensional contour plot for the two-dimensional filter HPP; generating a two-dimensional filter (ONE) when the two-dimensional contour plot for the two-dimensional separable filter LPP overlaps the two-dimensional contour plot for the two-dimensional separable filter HPP, two-dimensional filter ONE having the same dimensions of two-dimensional separable filter HPP with the only non-zero entry of value 1 being located at the center of two-dimensional filter ONE; subtracting two-dimensional separable filter HPP from two-dimensional filter ONE to create matrix (HPPinv); and generating a two-dimensional contour plot for non-separable filter DSCRN.

Moreover, the Examiner asserts that the combination of Williams et al. Wilkinson and Mendonca fails to teach constructing a filter, for utilization with a rendering device, to eliminate moiré in a rendered image when the two-dimensional contour plot for non-separable filter DSCRN is an approximation to a desired circular symmetry, the filter being constructed of two-dimensional separable filter LLP and two-dimensional separable filter HHP.

To meet this deficiency in the combination of Williams et al. Wilkinson and Mendonca, the Examiner proposes to modify the combination of Williams et al. Wilkinson and Mendonca with the teachings of Curry et al. The Examiner alleges that Curry et al. teaches constructing a filter, for utilization with a rendering device, to eliminate moiré in a rendered image when the two-dimensional contour plot for non-

separable filter DSCRN is an approximation to a desired circular symmetry, the filter being constructed of two-dimensional separable filter LLP and two-dimensional separable filter HHP.

From these allegations, the Examiner concludes that the presently claimed invention would be obvious to one of ordinary skill in the art with respect to the teachings of <u>Williams et al</u>. <u>Wilkinson</u>, <u>Mendonca</u>, and <u>Curry et al</u>. These allegations and conclusion are respectfully traversed.

As respectfully submitted above, independent claim 1 recites a method for descreening a digital image. The method selects a cut-off frequency and designing therefrom a one-dimensional separable low pass filter (LP), LP being a row vector having entries $[X_{-n}, X_{-(n-1)}, \ldots X_0, \ldots X_{n-1}, X_n]$; obtains a two-dimensional filter LPP by performing the operation: LP* X LP, LP* being a column vector having the same entries as LP, LPP having dimensions given by: $\{2n+1, 2n+1\}$; generating a two-dimensional contour plot for the two-dimensional filter LPP; designs a one-dimensional separable high pass filter (HP), HP being a row vector having entries $[Y_{-m}, Y_{-(m-1)}, \ldots Y_0, \ldots Y_{m-1}, Y_m]$; obtains a two-dimensional filter HPP by performing the operation: HP* X HP, HP* being a column vector having the same entries as HP, HPP having dimensions: $\{2m+1, 2m+1\}$; generates a two-dimensional contour plot for the two-dimensional filter HPP; generates a two-dimensional filter (ONE) when the two-dimensional contour plot for the two-dimensional separable filter LPP overlaps the two-dimensional contour plot for the two-dimensional separable filter HPP, ONE having the same dimensions of HPP with the only non-zero entry of value 1 being located at the center of ONE; and subtracts HPP from ONE to create matrix HPPinv; convolves LPP with HPPinv to obtain DSCRN having dimensions: $\{2m+2n+1, 2m+2n+1\}$; generates a two-dimensional contour plot for DSCRN.

The claimed method also selects two-dimensional separable filter LLP and two-dimensional separable filter HHP when the two-dimensional contour plot for non-separable filter DSCRN is an approximation to a desired circular symmetry; repeats (a)-(j) when the two-dimensional contour plot for non-separable filter DSCRN is not an approximation to a desired circular symmetry; electronically applies the selected two-dimensional separable filter LLP to a digital image to produce a first filtered image; electronically applies the selected two-dimensional separable filter HHP to a digital

image to produce a second filtered image; and subtracts the second filtered image from the first filtered image to generate a descreened digital image.

With respect to <u>Williams et al</u>., <u>Wilkinson</u>, <u>Mendonca</u>, and/or <u>Curry et al</u>., each of these references fails to teach, disclose, or suggest selecting two-dimensional separable filter LLP and two-dimensional separable filter HHP when the two-dimensional contour plot for non-separable filter DSCRN is an approximation to a desired circular symmetry; repeating (a)-(j) when the two-dimensional contour plot for non-separable filter DSCRN is not an approximation to a desired circular symmetry; electronically applying the selected two-dimensional separable filter LLP to a digital image to produce a first filtered image; electronically applying the selected two-dimensional separable filter HHP to a digital image to produce a second filtered image; and/or subtracting the second filtered image from the first filtered image to generate a descreened digital image.

Therefore, since <u>Williams et al</u>., <u>Wilkinson</u>, <u>Mendonca</u>, and/or <u>Curry et al</u>. fail to teach, disclose, or suggest selecting two-dimensional separable filter LLP and two-dimensional separable filter HHP when the two-dimensional contour plot for non-separable filter DSCRN is an approximation to a desired circular symmetry; repeating (a)-(j) when the two-dimensional contour plot for non-separable filter DSCRN is not an approximation to a desired circular symmetry; electronically applying the selected two-dimensional separable filter LLP to a digital image to produce a first filtered image; electronically applying the selected two-dimensional separable filter HHP to a digital image to produce a second filtered image; and/or subtracting the second filtered image from the first filtered image to generate a descreened digital image; the proposed combination of <u>Williams et al</u>. in view of <u>Wilkinson</u>, <u>Mendonca</u>, and <u>Curry et al</u>. fails to teach, disclose, or suggest selecting two-dimensional separable filter LLP and two-dimensional separable filter HHP when the two-dimensional contour plot for non-separable filter DSCRN is an approximation to a desired circular symmetry; repeating (a)-(j) when the two-dimensional contour plot for non-separable filter DSCRN is not an approximation to a desired circular symmetry; electronically applying the selected two-dimensional separable filter LLP to a digital image to produce a first filtered image; electronically applying the selected two-dimensional separable filter HHP to a digital

image to produce a second filtered image; and/or subtracting the second filtered image from the first filtered image to generate a descreened digital image.

Accordingly, in view of all the reasons set forth above, the Examiner is respectfully requested to reconsider and withdraw the present rejection under 35 U.S.C. §103.

D. Entry of Amendments under 37 C.F.R. 1.116

The Examiner is respectfully requested to enter the above amendments under 37 C.F.R. 1.116 because such amendments could not have been presented at an earlier time, for the following reasons. Moreover, as clearly demonstrated above, the finality of the Office Action dated October 18, 2007 is improper and premature.

As submitted above, the Examiner did not object to the Abstract in the First Office Action, dated May 7, 2007. Moreover, this new objection to the Abstract was not necessitated by Applicant's amendment because the Applicant did previously amend the Abstract. Therefore, since it is/was impossible for the Applicant to anticipate the Examiner's reversal with respect to the acceptability of the originally submitted Abstract, the present amendments to the Abstract are timely and could not have been presented at an earlier time.

Furthermore, as submitted above, the Examiner did not reject the claims based upon a lack of enablement in the First Office Action, dated May 7, 2007, because the Examiner asserted that the claims fail to set forth a specific utility. In the present Office action, the Examiner has presented new grounds for rejection wherein the Examiner asserts that claim 1 is not enabled by the specification because the claim requires a processor or device to carry out the claimed method. Therefore, since it is/was impossible for the Applicant to anticipate the Examiner's reversal with respect to the enablement of the originally submitted Specification, the present amendments to the claim are timely and could not have been presented at an earlier time.

The Examiner is also respectfully requested to enter the above amendments under 37 C.F.R. 1.116 because the amendments place the application in condition for allowance and materially reduce and simplify the issues, thereby placing the application in better condition for Appeal. It is noted that the Advisory Action, dated December 28,

2007, that the Applicant's Response (amendments to claim 1) have overcome the rejections under under 35 U.S.C. §101 and 35 U.S.C. §112, first paragraph.

Lastly, the Examiner is also respectfully requested to enter the above amendments under 37 C.F.R. 1.116 because the amendments do not require any further consideration and/or search and do not raise the issue of new matter. Accordingly, entry of these amendments under 37 C.F.R. 1.116 is proper.

CONCLUSION

Accordingly, in view of all the reasons set forth above, the Examiner is respectfully requested to reconsider and withdraw all the present rejections. Also, an early indication of allowability is earnestly solicited.

Respectfully submitted,

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